



County of San Diego

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Septic System Design for Second Dwelling Units

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BACKGROUND

A change in the San Diego County Zoning Ordinance allows for the addition of a second dwelling unit on a single lot when specific zoning requirements are met. These guidelines will assist staff with the design and sizing of subsurface sewage disposal systems for multiple residential dwelling units on a single property.

PERCOLATION TESTING

The second dwelling's design should be based on a percolation test or a waiver letter. A waiver of testing will be considered based on previous or adjacent percolation tests, soil type, uniformity of rates, area available, and type of system proposed for the second dwelling. A waiver of testing must have concurrence of the area supervisor.

FEES

A second dwelling unit may require a minor use permit from the Department of Planning and Land Use (DPLU), if the minimum lot size is not met or an increase in the allowable size of the unit is proposed. In addition, a second dwelling unit can have the same appearance as an accessory apartment when specific limitations on occupancy exist. See the attached excerpts from the County Zoning Ordinance, which provides definitions and specifications for allowance. Staff should be aware of the differences and possible requirements. In all cases, the customer should be advised to contact DPLU when the determination for allowance or the need for a Minor Use or Administrative Permit will be made.

When a minor use permit is not required, fees will be charged as we do for the construction of new dwellings. The septic permit fee will depend on what is being proposed. A new installation permit fee will be required for separate systems or the addition of a tank and disposal field to a common system. A repair installation permit fee can be used when the modifications only require a tank or disposal field expansion.

SYSTEM SIZE - SEPTIC TANK

Since each dwelling can have a kitchen with a dishwasher and garbage disposal, along with a laundry facility, the tank size must be calculated as separate flows, even if a common septic tank is used. The requirements will be as follows:

Main Dwelling	Second Dwelling	Minimum Tank Size
1 BR	1 BR	1000 Gallons
2 BR	1 BR	1200 Gallons
2 BR	2 BR	1500 Gallons
3 BR	1 BR	1500 Gallons
3 BR	2 BR	1500 Gallons
4 BR	1 BR	1500 Gallons
4 BR	2 BR	2000 Gallons

Dwellings larger than the above will require oversized or battery-type tanks and separate tanks for each dwelling should be used even if connected to a common disposal field.

SYSTEM SIZE - DISPOSAL FIELD

There are two ways to design a subsurface sewage disposal system for a second dwelling. The system can be designed as a separate system serving the second dwelling or on a common system serving both the existing dwelling and the second dwelling. A review of the calculations from several viewpoints provided approximately the same results, that the disposal fields for two dwellings would be the same, regardless of the use of common or separate systems. Since the second dwelling can be used for full-time occupancy, such as a rental unit, the system is to be sized accordingly based on independent dwelling units, even if a common system is to be used. The system size for a common system will be the sum of the two individual system sizes.

Example:

3 bedroom main dwelling and 2 bedroom second dwelling
Assume 16-minute/inch percolation rate

Separate Systems:

3 bedroom dwelling requires 360' + 100% reserve
2 bedroom dwelling requires 300' + 100% reserve

Common System:

3 bedroom dwelling + 2 bedroom dwelling requires 660' + 100% reserve

In many cases with second dwellings, the second unit will have only one bedroom. To size for this dwelling whether using a common or separate system, you can extrapolate from the SAN D-14 Leach Line Footage Chart to determine the footage necessary for a one bedroom dwelling.